

**PAT-NO:** JP402217439A  
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**TITLE:** HIGH STRENGTH LOW ALLOY  
STEEL HAVING EXCELLENT  
CORROSION RESISTANCE AND  
OXIDATION RESISTANCE  
**PUBN-DATE:** August 30, 1990

**INVENTOR-INFORMATION:**

NAME	COUNTRY
ISEDA, ATSURO	
SAWARAGI, YOSHIATSU	

**ASSIGNEE-INFORMATION:**

NAME	COUNTRY
SUMITOMO METAL IND LTD	N/A

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**ABSTRACT:**

PURPOSE: To improve the oxidation resistance, high temp. corrosion resistance and high temp. creep strength in the low alloy steel by specifying the contents of Mo, W, V, Nb, C and N in a steel and compoundedly adding Cu and Mg

thereto.

CONSTITUTION: The compsn. of the high strength low alloy steel is formed with, by weight, 0.02 to 0.2% C,  $\leq 0.7\%$  Si, 0.1 to 1.5% Mn,  $\leq 1.0\%$  Ni, 0.8 to 3.5% Cr, 0.1 to 1.5% Mo, 0.01 to 0.5% V, 0.01 to 0.2% Nb, 0.005 to 0.05% Al, 0.1 to 2.5% Cu, 0.005 to 0.5% Mg, 0.005 to 0.05% N and the balance Fe with inevitable impurities. In the compsn., in place of Mo, 0.1 to 3% W may be incorporated. If required, 0.001 to 0.02% B and each 0.01 to 0.2% of one or more kinds among La, Ce, Y, Ca, Ti, Zr and Ta are incorporated. The steel can be substituted for high Cr ferritic steel and austenitic steel.

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